

Personal response to the
New Zealand Productivity Commission's draft report

New models of tertiary education - September 2016

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All opinions expressed in this paper are the private and personal opinion of the author and should not be regarded as expressing the views of any organisation.

Introduction

The Productivity Commission has produced a welcome report on tertiary education, *New Models of tertiary education* (henceforth *New Models*). *New Models* has raised a number of important issues that require substantial debate. *New Models* has also suggested several changes that could be of major benefit to New Zealand's tertiary education system, including (1) moving away from an "inputs focus", (2) granting tertiary institutions greater autonomy to choose their strategy, and (3) conceptualising students as "co-producers" rather than "consumers." At the same time, there are a number of areas wherein *New Models* demonstrates either conceptual or factual weakness, or perhaps presents its arguments in an unclear fashion that could be improved through careful revision. This response aims to enable the Productivity Commission to improve their final report.

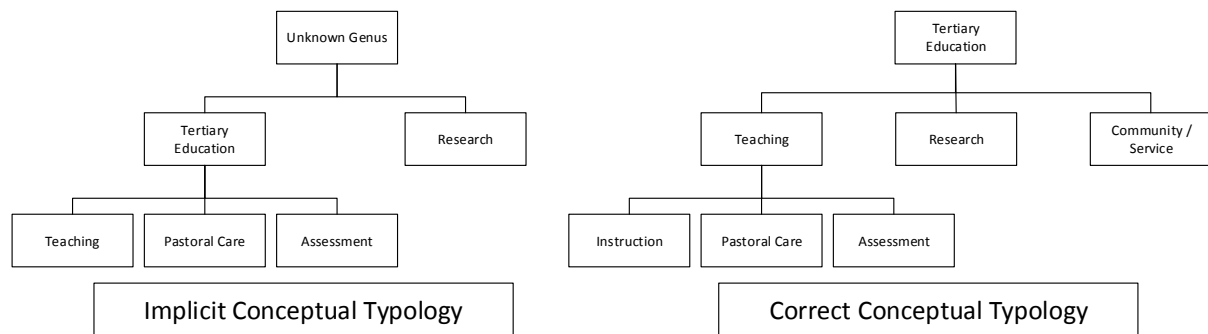
Six key areas where the author believes further work is required are discussed below. A seventh section recommends a new approach to the funding of tertiary institutions, one that differs from the Student Education Account suggested by the Productivity Commission, but which is designed to achieve the same ends. While this paper may read as overly critical, this is simply because the positive aspects of *New Models* require no further work, and as such it is better to focus on those that do require improvement, assuming that the remainder are entirely satisfactory. And, as noted, at times it may be my misinterpretation of *New Models* that is the issue.

1. Concept and purpose of tertiary education

The most fundamental flaw of *New Models* is an inadequate conceptualisation of tertiary education, which in turn has led to a flawed understanding of the purpose of tertiary education, and thus of the goals achieved by tertiary education. While *New Models* does not explicitly state a purpose or even goals for tertiary education, making statements such as that found on page 1 that tertiary education must "deliver successfully" a little confusing, a certain perspective is implicit in its analysis and recommendations. The following paragraphs attempt to unpick these.

New Models seems to conceptualise tertiary education as merely teaching; on page 1 it talks about the combination of teaching, assessment, and pastoral care. We also see this in such (Freudian?) slips as "many teachers and groups of teachers" (p.2) as opposed to the more terminologically correct "many academics and groups of academics." This is incomplete; teaching is merely one of the three roles of

tertiary education, which also include research and service (also known as community).¹ Tertiary education is the *genus*, whereas teaching is merely one of its *species*. This inadequate conceptualisation, which implicitly views tertiary institutions as merely “high schools on steroids,” in turn colours the rest of the report. For example, *New Models* states that “a good tertiary education is one that meets the needs of all students” (p.1); this is both true and false. A good tertiary education is one that meets the needs of students, the *disciplines* involved, the *academics*, the broader *public*, and the *government*.



The implicit purpose of tertiary education in *New Models*, as derived from a close reading, seems to be somewhat utilitarian: the production of trained and skilled workers with which to feed industry. This is exemplified on page 84 in the description of a “traditional pathway” whereby people attend school, complete a qualification, and then gain employment. The same page reinforces this assumption with the statement that New Zealand needs to “ensure up-front investments in education are well-aligned with employer needs.” I do not believe that tertiary education exists merely to produce graduates for industrial consumption. Education is designed to create critical thinkers (some of whom may disagree with the entire concept of capitalism and industry in the first place – I am not one of them, but tertiary education produces them!) and not simply cogs for a great machine.² The term for what *New Models* supports is “training”, not “education”, and I believe that in some places *New Models* has conflated the two, and suggested a wonderful approach to “workforce training” and simultaneously a terrible approach to “tertiary education.” It is of course possible that I have misread *New Models* and misunderstood its conceptualisation of tertiary education, but if this is so I suggest that the final report makes its conceptual framework much clearer, and in particular, lists explicit goals of the system. After all, if “‘New models’ are new and improved ways of adapting to change and achieving an end” (p.11) it would be convenient to know what that end is.

I suggest that the conceptualisation inherent in *New Models* has emerged due to a misreading of the current funding and governance system as somehow expressing some sort of fundamental truth about the tertiary education system as a whole, rather than simply being the latest iteration of evolving control structures. It behoves the authors to “go deeper” and at least aspire to the identification of a quasi-Platonic model of tertiary education. This could be done by a broader analysis of the relevant literature.

The authors of *New Models* could not have done much better than to have begun with a copy of the Robbins Report from 1963,³ whose statements that university places “should be available to all who were qualified for them by ability and attainment”, and that the system should have four “objectives essential to any properly balanced system: instruction in skills; the promotion of the general powers of the mind so as to produce not mere specialists but rather cultivated men and women; to maintain

¹ Jill Johnes and Jim Taylor, *Performance Indicators in Higher Education* (Buckingham: The Society for Research into Higher Education and Open University Press, 1990); Mantz Yorke, "Performance Indicators: Towards a Synoptic Framework," *Higher Education* 21, no. 2 (1991); Ronald Barnett, *Improving Higher Education: Total Quality Care* (Buckingham: The Society for Research into Higher Education and Open University Press, 1992).

² *Improving Higher Education: Total Quality Care*. Pp.94-95

³ C.B. Robbins, "Report of the Committee Appointed by the Prime Minister under the Chairmanship of Lord Robbins 1961-63," (London 1963).

research in balance with teaching, since teaching should not be separated from the advancement of learning and the search for truth; and to transmit a common culture and common standards of citizenship” could easily have been adapted for the New Zealand tertiary education system.

Tertiary education does serve an economic purpose, but it is an economic purpose in its true sense – not merely dollars and cents, but rather overall utility, generated through multiple mechanisms. *New Models* seems to imply that these social benefits are separate from economic benefits (p.18), but happiness is just as much an expression of utility as are dollars.

2. Misunderstanding of co-production

Linked to the above conceptual obscurity is a seeming mis-understanding of co-production. While *New Models* gives lip service to the concept of students as co-producers, they are then also viewed as consumers of a “product” with a privileged position above that of the other co-producers (such as academic staff). They are also at times viewed in passive terms, such as on page 6 where the discussion on value-add seems to suggest that students are merely passive recipients of knowledge generated by the tertiary institution, and thus a failure to learn indicates a failure on the institution’s side – a true co-production perspective would not assume that this is the case, but rather that both co-producers bear an equal responsibility for the end result.

Students can be most perceptively viewed in chronological order as (a) inputs, then (b) co-producers during the processing stage, and finally as (c) graduate outputs that generate (d) societal impacts and outcomes.⁴ Viewing the process in such a fashion liberates us from accepting current funding and governance models as representing any fundamental truth, and also enables us to understand the potential role of government – purchasing graduate outputs of sufficient quality and quantity, in a like manner to the way in which it purchases health, defence, or welfare outputs. From this perspective, the government’s level of control over the tertiary education system is not a problem, but is rather essential, and may indeed be insufficient.

A true belief in co-production in *New Models* would require far more attention on the responsibilities of students to perform. It would also avoid such quotes as “traditional higher education (needs) to adapt to better match the needs of an increasingly diverse range of students” (p.27), as it is not only the system that needs to adapt; students need to adapt, for they are active participants in the process. Indeed, given the information asymmetry between institutions and students, a valid co-production perspective would likely require greater adaptation by students than institutions, given that the institutions likely know more about the disciplines involved in the teaching process, and thus should have greater influence about what is required to produce the graduate output. Tertiary education is not the same as high school, and demands greater effort and control by the students – they must become self-reliant.

3. Research

There are a range of errors in relation to research, which I believe stem from inadequate conceptualisation as discussed above. At one point, *New Models* talks about how prior university students, through taxation at their current employment pay for the education of current students; this is temporal separation (or intergenerational transfer of a sort). However, *New Models* does not seem to understand that the same temporal separation applies to research.

Teaching cannot occur without the presence of the knowledge to be communicated by the teaching

⁴ Alistair McCulloch, "The Student as Co-Producer: Learning from Public Administration About the Student-University Relationship," *Studies in Higher Education* 34, no. 2 (2009); Zhivan Alach, "Performance Measurement and Accountability in Higher Education: The Puzzle of Qualification Completions," *Tertiary Education and Management* 22, no. 1 (2016); "Towards a Standard Conceptual Typology of Public Sector Performance Measurement," *Kotuitui: New Zealand Journal of Social Sciences Online* (2016). However also see Barnett, *Improving Higher Education: Total Quality Care*, 20.

process. To create knowledge, however, requires research. As such, the teaching conducted today relies on the research of yesterday, and the teaching of tomorrow will rely on the research of today, unless we assume that we have reached a satisfactory sum of human knowledge, and no more is required. To change the current model, and disentangle teaching and research, could easily lead to intergenerational theft where future institutions consume the efforts of today's researchers without contributing to the pot.

Even without this temporal separation, there is a strong argument to be made in regards to supposed cross-subsidisation. An analogy might be useful here. When one goes to a restaurant, one does not merely pay for the raw materials used, the electricity consumed by the stove, and the time used by the chef and waiter. One also pays for the electricity bill when one isn't there, the accountant's fees, and the marketing cost. We do not claim that we are subsidising some "non-core" activities. Teaching cannot exist without research (as teaching requires knowledge, which is generated by research) and thus disentangling the two is conceptually fuzzy.

In relation to research-intensiveness, *New Models* makes the comment that "many good universities... would not meet this requirement" (for being research intensive). I think this is very much pushing the definition of "university"; in common and academic usage, "university" requires a heavy focus of research. Institutions that are not research-intensive may be excellent institutions – such as polytechnics or institutes of technology – but they are not universities. A good university is a research university; a non-research university is not a university at all. Again, this flows from the inadequate conceptualisation of tertiary education touched on above.

Last, but not least, I think it problematic that *New Models* does not explore the potential implications of separating research and teaching funding. If research were funded solely through competitive grants, then it would inordinately favour existing research programmes seeking incremental funding increases. It would hinder early-career and early-field interest-driven interest; there would be no opportunity for a brand new history lecturer to spend a few weeks paging through dusty archives in the hopes of finding something intriguing, as his/her time would be taken up by teaching and grant-driven research. Such an approach would also inordinately favour scientific research, in particular in the fields of chemistry and biology, as the liberal arts have consistently been discriminated against in, if not entirely excluded from, research grant schemes.

4. Tertiary education as a public service

This point builds on that covered in the first section relating to the concept and purpose of higher education. *New Models* uses language that, while economically "pure" (in a dry sense) would seem rather odd when applied to other parts of the public sector.⁵ This is because in *New Models*, tertiary education, despite some commentary to the contrary, is perceived as primarily a private good; this leads to comments about "subsidisation" that would sound odd in other contexts. We do not (usually) claim that my tax dollars subsidise your use of the police service or fire service. We assume that even if we do not directly utilise these services, because we are never burgled, or have our house ignite, that there is a general public benefit from a low-crime, unignited society. As such, while it is conceptually correct from a certain philosophical viewpoint to state that "government pays for tertiary education via taxation... which redistributes (some) wealth from those who have already benefited from tertiary education to those who could benefit in the future" (p.18), the same argument could potentially be extended to cover all parts of the public sector.

This potentially contentious approach leads to statements such as "providers (are) more responsive to government than to students" (p.2), which is presented as a problem. It is only a problem, however, if we regard the student as a consumer (see point two on co-production) and tertiary education as primarily a private good. If tertiary education is a public good co-produced within institutions through academic/student co-production, then it is entirely appropriate that providers respond to the government,

⁵ A useful discussion on the topic can be found in David Turner, *Quality in Higher Education* (Rotterdam: Sense Publishers, 2011), 101.

rather than students; we do not assume that the police force will be more responsive to its staff (co-producers of policing outputs) than the government.

5. Performance, funding, and incentives

There are a number of issues relating to performance, funding, and incentives that require further attention. It may be that I have misread parts of *New Models*, but there appear to be several areas where there are either factual errors or more fundamental conceptual misunderstandings. These are grouped below into three sub-sections: (1) outcomes and performance, (2) funding flexibility, and (3) independence and autonomy. Often, the key issues is whether or not the existing system *can* enable the flexibility desired by *New Models*, rather than whether it *has*.

Outcomes and Performance

New Models takes an intriguing approach to the issue of targets and incentives, noting that “the funding systems penalise failure” (p.2). While I am not an expert in performance management, I would not hesitate to state from my study of the literature that performance-linked funding systems are *designed* to penalise failure; the entire philosophy is “paying for performance” either through *post facto* bonus/reward schemes or *ex ante* specification of the performance results to be purchased. Innovation is of no use unless it leads to beneficial ends (as *New Models* itself states), and if a system designer wishes to (for some odd reason) design a system that facilitates innovation in and of itself, this could be done by implementing a performance scheme that focuses on processes, rather than outputs or outcomes (like a suggestion box at a system-level).

More specifically, *New Models* claims that “course and qualification completion, and graduate salaries and employment rates” are not good indicators of provider performance as they do not measure the “value added” by the tertiary institution (p.9). There are several issues with this. First, there is no perfect measure of the amount of knowledge gained by a student during his/her time at an institution,⁶ and course/qualification completions serve as acceptable proxies for this “ideal” measure – they have been used across the world for many years,⁷ and are still better than their alternatives. Thus, while they are not perfect, they are perfectly acceptable, and indeed are probably better than the measures used in some other fields (based on the author’s admittedly limited experience).⁸ Secondly, to quote Barnett, “in the end, the student’s achieving of the promise of higher education has to depend essentially on his or her efforts”;⁹ a failure to “add value” to a student may have nothing to do with the institution’s “performance” and everything to do with the student’s failure (although, from a purist co-production perspective, the student is a part of the institution and as such his/her failure is indeed an institutional failure – however if this perspective is taken, then students are most assuredly not consumers and thus much of what *New Models* suggests becomes difficult to justify).¹⁰ Secondly, graduate salaries and employment rates are entirely appropriate measures, especially when benchmarked across the sector; while some of these results may be reputational rather than instrumental (in the sense that a graduate from University X may not actually be much better at a job than a graduate from University Y, but

⁶ Ben Jongbloed and Hans Vossensteyn, "Keeping up Performances: An International Survey of Performance-Based Funding in Higher Education," *Journal of Higher Education Policy and Management* 23, no. 2 (2001).

⁷ Martin Cave et al., *The Use of Performance Indicators in Higher Education: The Challenge of the Quality Movement* (London: Jessica Kingsley Publishers, 1997); John Cullen et al., "Quality in Higher Education: From Monitoring to Management," *Quality Assurance in Education* 11, no. 1 (2003); David Dill, "Quality Assurance in Higher Education: Practices and Issues," (Chapel Hill: University of North Carolina, 2007); David Scott, "A Closer Look at Completion in Higher Education in New Zealand," *Journal of Higher Education Policy and Management* 31, no. 2 (2009).

⁸ For example, given the role of NZQA and other agencies, we can assume that “qualification completions” meet a minimum standard, whereas in other fields the absence of a third-party quality assurance might make us question whether or not a measure such as “percentage of P1 calls responded to within 30 minutes” (Police) is meaningful; what does “respond” mean and does the response have to be meaningful?

⁹ Barnett, *Improving Higher Education: Total Quality Care*. P.38

¹⁰ Alach, "Performance Measurement and Accountability in Higher Education: The Puzzle of Qualification Completions."

University Y may have the reputation of producing better graduates) this is still an acceptable measure of performance.

In relation to completions, page 344 notes that institutions suffer if a student moves away, as his/her completion will be credited to the second institution. This is true, but it is not a problem if there is equal flow to and from institutions (analogous to the insurance industry's "knock for knock" system), and if there is unequal flow, then it seems entirely appropriate for the institution that is so unpopular that it is haemorrhaging enrolments to be punished; it is likely that there are other underlying performance issues.

New Models combines two points - that the current Performance Linked Funding (PLF) scheme does not seem to have lifted outcomes for Maori and Pacific students (p.341), and that there is no major link between performance targets and funding, to draw the conclusion that "Performance-Linked Funding should be discontinued" (p.7). I humbly suggest that the flaws in the current scheme are not a reason to discontinue PLF, but rather to strengthen it; to shift the current *post facto* reward scheme into an *ex ante* scheme where all funding is allocated to purchase a desired quantity and quality of outputs (graduates, research, and community service) from tertiary institutions.

Funding Flexibility

It may be my misreading of the report, but *New Models* seems to make some incorrect statements in relation to providers, Equivalent Full Time Students (EFTS), and funding. I think some of these are based on a flawed view that the situation as it stands indicates the flexibility inherent in the system; these are two separate issues. There is a claim that "high performing providers have little scope to grow at the expense of poor performers" (p.4), that providers receive similar volumes of EFTS funding (p.9), and that "student choices have little if any impact on provider revenue, as long as providers can fill their allocated EFTS quota" (p.340). While providers are indeed allocated funding based on a predicted EFTS total, if they fail to reach those EFTS numbers, they are required to repay the Tertiary Education Commission (TEC); as such there is no funding stability – a provider that fails to make "sales" (EFTS) will not receive that level of revenue. We can assume that if a provider fails to reach its EFTS targets, this is due to some performance shortcoming that has been recognised by potential students and thus there is a direct relationship between student desires and provider funding. As for high performing providers, there is nothing stopping institutions enrolling as many students as they can; while they will not receive government funding above their cap, they will still receive the student fee component, which given economies of scale is likely to be largely profit. As such, the existing funding model provides more than sufficient flexibility for better providers to grow at the expense of worse providers. The stability that exists is not inherent in the system; the same system could easily lead to one in which provider EFTS and thus revenue waver dramatically year-on-year. It also seems logically incoherent to state that "student choices have little if any impact" if it is student choices that determine whether or not the institution will fill its allocated EFTS quote.

New Models states that the "cost of education... has had the unintended consequence of creating a strong incentive to constrain the supply of tertiary education" (p.6). I am not sure that this was unintended; nor am I sure that this is a problem. Unconstrained supply is likely to lead to (a) oversupply and (b) low quality graduates. One could easily posit unethical providers in an unconstrained market utilising information asymmetries and appealing to the relatively low knowledge of potential students by enrolling substantial numbers in seemingly "high quality" disciplines such as the law or information technology, yet producing so many graduates that they cannot be absorbed by industry. I am also not sure that the point raised on page 9, that "student access to tertiary education is centrally controlled, and choice is constrained" has significant effects on student choice. There are very few examples of delivery quotas being exceeded for funding reasons (or we would see institutions up and around 100-102% of their EFTS quota), and where there are clear caps, this is usually for reasons of (a) quality (we don't want just anybody being in the SAS) or (b) employment opportunities (there are only so many spaces for lawyers).

New Models quotes from the Independent Tertiary Associations submission (p.190):

assume that in a particular discipline, prospective students have a choice between two providers, one that is very high quality and the other that is mediocre. The high quality provider is oversubscribed and so must turn away a number of applicants. Those declined applicants then find a place in the mediocre institution, which then meets its EFTS target. Two negative effects occur - a number of students receive a lower quality education than they might have had, and the mediocre institution stays in business.

This is only correct if no response is made. First, the higher quality provider (A) can enrol students above its EFTS quota, receiving the student fee component (but not the government funding). Second, provider A can negotiate with the TEC for a larger quota in the following year. Over time, this will lead to the higher quality provider monopolising the EFTS quota for the discipline (as seen in medicine and veterinary science already), avoiding the quality issues noted. Simply put, the existing system provides sufficient flexibility for the above situation to be averted, if not immediately, then over several years.

There is a statement that “TEOs are locked into a predetermined pattern of delivery” (p.339). Again, while there is a kernel of truth here, institutions that negotiate a two-year Mix of Provision (MOP) via an Investment Plan can completely alter that MOP at the conclusion of the plan period, and indeed can adjust it on an annual basis. There is clear evidence that institutions change their delivery over time, albeit sometimes not for the better – there are fewer places wherein one might learn Russian, Latin, Greek, or Indonesian than previously; if TEOs were truly locked in, one would not expect these subjects to have disappeared.

A last funding-related issue relates to fees. *New Models* claims that “uniform student fees are a significant constraint on innovation” (p.339) and that “fee regulation inhibits differentiation” (p.340). This is not true. While there are fee *maxima*, there are no fee *minima*. Southern Institute of Technology (SIT) utilises a zero-fees scheme that could easily be emulated; there is no reason why a particular institution could not slash its fees and also compete on price. It is also questionable whether or not uniform fees need inhibit differentiation; the same dollars received from a student could be used to fund either a personal, pastoral approach with small classes and lower technology, or a more impersonal, larger class, technology-driven approach. It is one of the advantages of a relatively “bulk funding” approach that the dollars received can be used in whichever way the institution sees as best.

Autonomy and independence

New Models talks about enhancing the autonomy and independence of tertiary institutions – “a better approach would be to allow providers to pursue different strategies” (p.6). However, it should be emphasised that autonomy is not an end in itself; the reason autonomy is likely to be of benefit is that a decentralised, M-form tertiary education system is more flexible and can adapt more rapidly to changing circumstances.¹¹

It is also likely that increased autonomy would have some unintended consequences, particularly in relation to *New Models*’ support for greater freedom for students to switch providers. Independent providers will have even less incentive to reduce switching costs for students, as they will be even more competitive than they are now.

¹¹ Dan R Dalton et al., "Organization Structure and Performance: A Critical Review," *Academy of management review* 5, no. 1 (1980); Mahmoud Ezzamel and Robert Watson, "Organizational Form, Ownership Structure and Corporate Performance: A Contextual Empirical Analysis of Uk Companies1," *British Journal of Management* 4, no. 3 (1993); Yingyi Qian, Gérard Roland, and Chenggang Xu, "Coordinating Tasks in M-Form and U-Form Organisations," *LSE STICERD Research Paper No. TE458* (2003); Robert E Hoskisson, "Multidivisional Structure and Performance: The Contingency of Diversification Strategy," *Academy of Management journal* 30, no. 4 (1987).

6. Strategic environment and historical trends

New Models would do well to take a slightly more cynical approach when assessing the strategic environment.¹² At times, its rhetoric tends to the inflammatory, such as when it describes “considerable risks” facing New Zealand if it does not adapt its tertiary education system – risks to what? From who? While tertiary education is indeed notorious for inertia (p.1), this may be positive. Tertiary institutions are some of the most resilient organisations in the world. They are often older than nation-states, they have lasted much longer than most private companies, and they have endured centuries of technological revolution.

New Models states that “the tertiary education system is not well-placed to respond to uncertain future trends and the demands of more diverse learners”, (p.2) and that “what has served New Zealand well in the past is unlikely to meet future needs” (p.10), but I am not convinced that sufficient evidence has been proffered to support this point. The tertiary system has, as noted, adapted to centuries of technological change – the printing press (the original “killer app”!), the telegraph, the railway, and so on. It is unlikely that the near future will present changes of such disruptive magnitude that the existing system cannot respond. At times, *New Models* seems to perhaps ignore the inherent flexibility in the system as it stands, and the ability for that system to create change through steady incremental movement. The evidence suggests that the view held by many tertiary providers in New Zealand that they “do not consider that technology will significantly change their core operating models in the future” may be rather accurate, (p.5) in the same way that technology has not significantly changed core operating models (except in terms of steady incremental change) for 800 years. Technology is not a prerequisite for innovative and effective teaching models, such as flipped classrooms (p.27); New Zealanders such as Elwyn Richardson have demonstrated such approaches using nothing more complex than a blackboard and the world outside the classroom. The physicists who built the first atomic bomb did so with less computing power than a first year physics student’s calculator, yet nobody would claim that their work was less fundamental than the student’s.

7. A better funding approach

New Models states that the government should consider alternatives to EFTS. This is a wise recommendation. However, those alternatives need to be output or outcome focused, not input (enrolment) focused. Such a model could take the following form:

1. Each year (or on any recommended budget cycle), the government should agree to purchase a specified number of outputs (graduates, research, and community), at defined levels of quality, from various institutions, based on an analysis of the outputs required to achieve desired outcomes;
2. Each institution will thus be free to configure itself as it sees fit to deliver these outputs (i.e. some may prefer more inputs with a lower completion rate);
3. To ensure equity, a higher purchase price might be allocated for graduates in particular priority groups (and in particular disciplines, for example, Maori doctors);
4. Research outputs will be generic, rather than being the subject of detailed competitive processes (these processes will still exist independent of the primary funding mechanism e.g. Marsden Grants);
5. To meet industry complaints about work-readiness, a voluntary or compulsory industry levy could be implemented, wherein industry could pay for the right to purchase specified graduate outputs.

There are potential fish-hooks in this approach. Paying for graduates (rather than enrolments) may incentivise some providers to lower their assessment standards to maximise graduate numbers and thus revenue. As such, it is possible that a reinforced and independent quality assessment system would be required.

¹² William Lawton et al., "Horizon Scanning: What Will Higher Education Look Like in 2020?," (Observatory on Borderless Higher Education and UK Higher Education International Unit, 2013).

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